

Basic Requirements for acquiring Water Construction Permits

1. The Contractor must be bonded by the City of Cambridge, with a minimum bond of five thousand dollars (\$5,000).
2. If the Contractor has never performed water works construction for the City of Cambridge they must submit two (2) letters of recommendation from other cities/towns in the Commonwealth.
3. The Contractor must submit a package, consisting of the following, to the Cambridge Water Department's Engineering Division for review.
 - Engineering plan on the nature of the work to be done. Emphasis on the existing and anticipated conditions.
 - Contractor's Tax ID number
 - All contractor's permitted by the CWD must complete and have on file a IRS W-9 form
 - Dig Safe number
 - Contractor's/Owner's contact information
 - Submittals if necessary
 - Associated fees, normally \$125.00 per inspection with \$1,000.00 (min.) deposit. (actual fees to be determined by the Water Department).The deposit will be refunded upon approved completion of the work.
4. The review process will take a minimum of 3 working days. Permits must be obtained in person at 250 Fresh Pond Parkway. Please call the Engineering Division Office at 617 349-4137 for an appointment.
5. Failure to obtain a Water Construction Permit will result in assessment of fines and potential exclusion from future work in the City of Cambridge.
6. **Please note: Starting April 1, 2009 all trench work on public and private property must be permitted per a new Massachusetts state law. This permit is available at the CDPW and must be completed BEFORE any trench work can begin. Failure to do so, at a minimum, will result in fines.**

Water Construction Permits will be issued based on the following work schedule

The following Water Construction Permits must be obtained in person at the Cambridge Water Department 250 Fresh Pond Parkway, Cambridge, and MA 02138. **Appointments are necessary by calling: (617) 349-4137**

1. **Water Construction Permit** issued by the Engineering Division: Contacts: Steve Lush ,Manager of Engineering and Program Development at (617) 349-4782 or Innocent Lugumamu, Resident Engineer at (617) 349-4137

Mondays 7:00am-7:30pm

Tuesdays-Thursdays 7:00am-3:00pm

Fridays 7:00am-12:00pm (noon)

2. **Construction Water use and Hydrant Rental Permits** issued by the Cross Connection Program of the Engineering Division: Contact: John Blouin, Cross Connection Supervisor at (617) 349-4025

Monday thru Friday 7:00am-3:00pm

Conditions for Approval for all Water Construction Permits

1. All Contractors must be bonded with the City of Cambridge.
2. All abandoned(e.g. Temporary, domestic, fire, irrigation, non-active etc.) water lines must be cut out of the water main it is connected to and replaced with an appropriately sized “splice-piece”. This requires coordination with the Cambridge Water Department (CWD) and must be scheduled at least 72 hour (3 business days) in advance. Cutting and capping the old “Tee” and valve and abandoning the same (in place) is only allowed by CWD approval. If cutting and capping is allowed by the CWD it must be with restrained joints and then inspected by the CWD. Trench and surface conditions must be inspected by the Department of Public Works (DPW).
3. **If the permitted water work requires a water main shutdown (coordinated with and performed by the CWD, only) the contractor that is permitted to perform the water work must notify all affected water users of the shut down at least 72 hours prior to the shut down and to deal with and mitigate all contingencies related to that notification and shutdown.**
4. All materials must meet American Water Works Association (AWWA) standards. All other materials must meet specifications set by the DPW.
5. Ductile iron pipe must be Class 52 or greater with 1/8 inch cement lining. Copper tubing shall be type “K” only.
6. Multiple taps must be a minimum of 3’(ft) from flange to flange and 3’(ft) from any joint or bell on the main being tapped.
7. All water work construction must be inspected by CWD prior to trench backfill. Calls for inspection must be made at least 24 hours in advance of inspection.
8. All shut -offs/turn ons must be performed by CWD personnel. Arrangements must be made by calling CWD’s Distribution Office at (617) 349-4743.
9. Upon completion of work, legible “swing-tie” drawings must be submitted to CWD. “Swing ties” must be taken to all valves and bends and must be measured and recorded from permanent and

visible structures. (e.g., catch basins, hydrant, etc.) If legible “swing ties” drawings are not submitted to the CWD upon completion of the water related work the deposit may be forfeited and the water/fire service cannot be turned on. Final “as built” drawings must be submitted, preferable in electronic format such as Auto CAD, (in triplicate) to the CWD within 60 days.

10. After the Water Construction Permit has been approved a Street Opening Permit must be obtained from DPW.
11. The Cambridge Water Department (CWD) must be notified at least 24 hours before any water work construction begins.
12. If a water service is to be used for construction purposes, back flow devices may be required. For more information on back flow prevention, please contact the CWD’s Cross Connection Program Supervisor, John Blouin at (617) 349-4025.
13. The Cambridge Fire Department (CFD) approval is required for fire line installation.
14. A check, made payable to the City of Cambridge in the amount of 10% of the contract cost of \$1,000, whichever is less, shall be held on deposit by the CWD until satisfactory completion of the water work construction. (No deposit is required for work on private property)
15. The CWD requires 72 hour notice to “mark out” the water utilities before water work construction may begin.
16. A “Dig Safe” number must be obtained before construction may begin.
17. All new water mains and service piping that is made up of Class 52, C.L.D.I. pipe must be pressure tested, chlorinated and certified free of bacteria before activation in the distribution system (see SK-1, attached). New piping must be chlorinated and held for a 24 hour period. This step can be done in conjunction with the two (2) hour pressure test or separately but **it must be done!** This test must be certified by a State certified testing firm and submitted to the CWD before flushing and bacteria sampling is done. Chlorination taps must be located with 3’ (ft) of new gate valves and or permanent end caps. Flushing of pressure tested and initially chlorinated piping must be conducted by the contractor and CWD. CWD personnel are the only personnel authorized to turn gate valves in order to “flush the line”. The contractor is responsible for the chlorinated water being flushed from the new work to the appropriate receptacle pre-approved by the DPW. After the new work is completed the CWD will take a bacteria sample for analysis. CWD will close all new gate valves of the flushed water main and if the bacteria sample passes, will return 24 hours later to open all gate valves. The contractor is advised to plan water main testing accordingly. The latest that the CWD will open new gate valves and place new water mains in service as result of successful bacteria testing is **noon on Fridays.**
18. New fire services must be certified by a Massachusetts Registered Professional Engineer (**Fire Protection P.E.**). The CWD requires that the fire protection P.E. responsible for the design of the

fire service to **specify** the appropriate water main to be tapped and to **certify** that a current hydrant flow test (i.e., flow tested within the past 6 months by the CWD) on the water main to be tapped. The fire protection system design P.E. must **certify** that the existing distribution system will provide the required flow of water to the proposed fire protection system during “max-day” flow conditions. Additionally, the fire protection system design P.E. must **specify** the diameter of the new fire service supply pipe from the water main to be tapped to the dwelling. The CWD requires (2) two documents that will become part of the “permit” package. First, a site drawing showing the water main to be tapped and the service leg from the water main to be tapped to the dwelling, the street(s) name(s) adjacent to the dwelling and all pertinent site civil details that is traditionally stamped by a Massachusetts P.E. (**Civil engineer**). Second, a separate letter, addressed to the CWD and which **includes an original P.E. stamp of the fire protection design engineer**, including the following information: Description of the project location (i.e., address and reference to the above mentioned “site drawing”), date and results of recent hydrant flow test(s) performed by the CWD on behalf of the fire protection design engineer and performed within the past 6 months (include dates) on the specific water main to be tapped, the diameter of the fire service supply pipe to be installed between the water main to be tapped and the dwelling, the total square footage of the dwelling to be fire protected by the proposed system, the maximum gallons per minute per zone that will be discharged and the style and the total number of sprinkler heads proposed and the size and type of backflow device proposed to be installed on the system inside the dwelling. **Additionally, the fire protection system design P.E.’s letter must state that he/she certifies that the existing distribution system will provide the required water flow to the dwelling during the distribution system’s “max-flow” conditions.**

19. CWD will issue an initial free copy of the Cambridge Water Department’s (CWD) Construction Standards and Specifications. Additional copies will be sold at a cost of \$25 per copy.

Permit Number: _____

Name of Company: _____

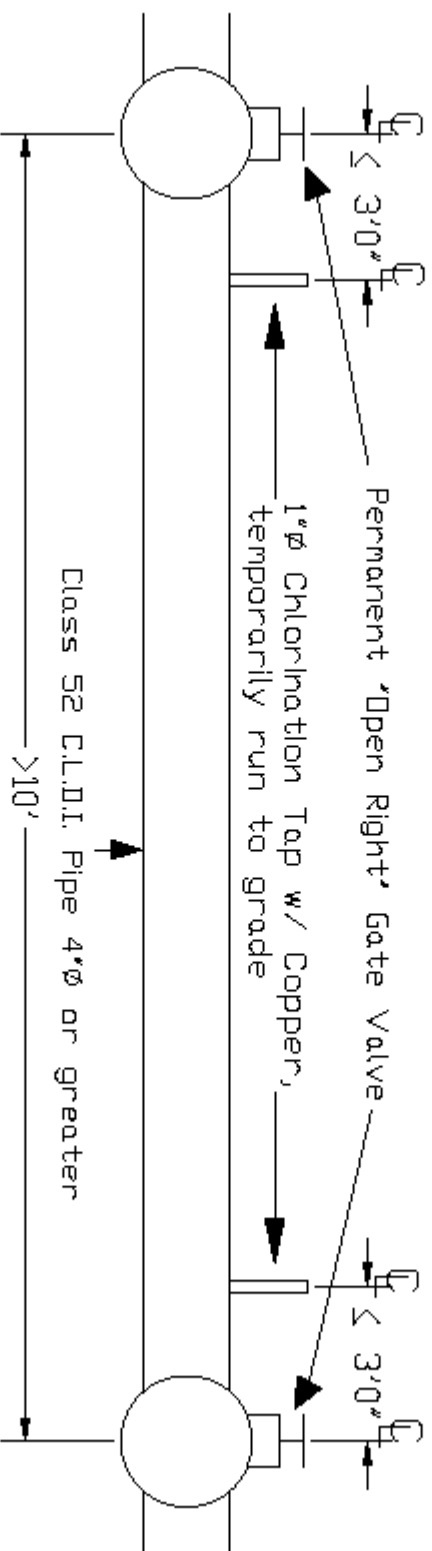
Name of Representative: _____

(Please Print)

Signature of Representative: _____

Date: ____/____/____

SK-1



Preferred configuration to permit proper pressure testing, initial chlorination and bacteria sampling of all class 52 C.L.D.I. pipe 4'Ø or greater used for water mains and services that are 10' or longer. For lengths <10' "swab" chlorination permitted but by pre-approval and inspection of work by CWD.

Note: Corporations for chlorination taps are to be removed and replaced with sanitized flush plugs after successful and acceptable results from bacteria testing.

REQUIREMENTS FOR BACK FLOW PREVENTER INSTALLATION

Telephone 617-349-4025

1. Complete one (1) form BRP WS 09 cross connection plan approval (Design Data Form) for each device to be installed.
2. Submit an 8 ½" X by 11" sketch or schematic with each Design Data Form .
3. Design Data Forms may be obtained from the secretary at the Inspectional Services Department or from the Cross Connection Section of the Cambridge Water Department.

Massachusetts Regulation Plumbing Code 248 CMR 2:14 (6) C (2) " No plumbing permit shall be issued for cross connection installation requiring reduced pressure zone back flow preventer or double check valve assemblies until the application for such permit is accompanied by a letter of approval from the Massachusetts Department of Environmental Protection (D.E.P.) or its designee.

As the D.E.P designee, The Cambridge Water Department will issue a letter of approval upon review and acceptance of the design data sheet.

NOTE: Please call the cross control office when the installation is complete and ready for testing.

Permit Number: _____

Name of Installer / Contractor: _____

Signature of Installer / Contractor _____

D

Multiple Inspection Form

Permit Number _____

Name of Contractor: _____ Address: _____

1. Approval of _____ CWD: _____ Date: _____

Cross Connection

Supervisor (617-349-4025)

2. Approval of _____ CWD : _____ Date: _____

Meter Technician

Supervisor (617-349-4737)

3. Inspection of _____ CWD Inspector: _____ Date: _____

4. Inspection of _____ CWD Inspector: _____ Date: _____

5. Inspection of _____ CWD Inspector: _____ Date: _____

6. Inspection of _____ CWD Inspector: _____ Date: _____

7. Inspection of _____ CWD Inspector: _____ Date: _____

8. Inspection of _____ CWD Inspector: _____ Date: _____

9. Inspection of _____ CWD Inspector: _____ Date: _____

10 Inspection of _____ CWD Inspector: _____ Date: _____

11 Inspection of _____ CWD Inspector: _____ Date: _____

12 Inspection of _____ CWD Inspector: _____ Date: _____